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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,270	07/09/2004	Jean-Pierre Germain	Serie 5831	6035

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Air Liquide
Intellectual Property Department
2700 Post Oak Blvd
Ste. 1800
Houston, TX 77056

EXAMINER

ALI, MOHAMMAD M

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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07/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,270

Applicant(s)

GERMAIN, JEAN-PIERRE

Examiner

Mohammad M. Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-25,27-35,37-44 and 46-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-38 and 52 is/are allowed.
- 6) ☒ Claim(s) 22-25,27-31,39-44,53 and 4651 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "foodstuffs" for claim 53 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

Art Unit: 3744

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 53 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose that the injection pipe for injecting said foodstuffs into said pipe rather the injection pipe 5 being used to send air to be cooled (see specification page 5, lines 21-23).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-25, 27-31 and 39-41, 43-44, 46-51 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al., (5,036,673). Miller et al., disclose a method and apparatus which may be used to cooling a stream of gaseous fluid (air recirculating by the fan 14) comprising a mixing area/inner cylinder 12 through which the stream passes; at least one impact surface (fan blade 14 on which the air stream impacts as seen by the airflow indicating arrow on the fan 14) located inside the are 12; and a spraying means 17 spraying liquid nitrogen into the are 12; wherein the injection

Art Unit: 3744

zone has a cross section smaller than that of the portion of the area containing the impact surface and greater than that of the spraying means 17; while spraying through nozzle 17 increases the cross section of the flowing stream (see the flow stream at the nozzle 17); slowing the flow rate of the fluid by increasing the cross section of the stream by a larger cross sectional flow area of the inner cylinder 12 in respect to the annular cross sectional flow area formed by the space between the inner cylinder 12 and the outer drum at the entrance of the recirculated fluid near the bottom of the inner cylinder 12 and the bottom of the drum 2; recovering the cooled fluid by recirculating or getting back fluid in the inner cylinder 12 and applying the recovered fluid to objects (droplets of liquid egg/food stuff) 23; diverting at least a portion of the cooled fluid and exiting the confinement through outlet 28. (or see column 5, lines 66-68) for cooling and freezing, the cooled fluid being cooled to between -40 degree C to -160 degree C (see claim 4). See Fig.I, column 4, line 4 to column 5 line 68.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. Miller et al., disclose the invention substantially as claimed as stated above. However, miller et al., do not disclose chocolate. Miller et al., teach to cool liquid egg

Art Unit: 3744

droplets (a food stuff similar to the claimed invention to cool chocolate an another food stuff). Therefore, Miller et al., obviously read the claimed invention. Regarding the position of impact surface, it is an obvious design choice to one of ordinary skill in the art to place it at the upstream or down stream end of the mixing pipe.

Allowable Subject Matter

Claims 32-38 and 52 is allowed.

Response to Arguments


Applicant's arguments filed 08/11/06 have been fully considered but they are not persuasive fully. The Applicant argued, "Independent claims 22 and 32 have been amended to include the limitations of diverting at least a portion of the cooled fluid and exiting said confinement and wherein said flow rate of said fluid is slowed by directing said stream toward an impact surface--- . Accordingly, rejection, as pertaining to these claims, is unsupported," The Examiner disagrees. For addition of further limitation to claim 32 by applying said diverted portion after exiting said confinement to said objects; The examiner found that the claim 32 overcomes the rejection but not the claim 22 as explained in the rejection above. Accordingly claims 32-38 have been allowed. Further Applicant does not explain allowability reason for claims 39 and 53. Therefore, rejections are proper.

Art Unit: 3744

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad M. Ali whose telephone number is 571-272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


MOHAMMAD M. ALI
PRIMARY EXAMINER